

## Annotated List of Nominal Species of Culicines of India

I. Introduction. Genus *Toxorhynchites*

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## Introduction

The primary purpose of this paper and those to follow is to provide data basic to project "Culicine Mosquitoes of India" (Berlin 1972). These data are needed to obtain authentic associated reared material of all nominal species reported from India, both those currently considered as valid taxonomically and those regarded as synonyms of other species. This information will facilitate the collection of all species from specified breeding sites and original type localities.

The list of species under each genus is arranged alphabetically and the date for each species generally follow the format developed by Belkin, Schick and Heinemann (1965). For subspecies and junior synonyms, the species or senior synonyms are shown in [brackets]. Species originally described from India are marked with an asterisk(\*).

Under TYPE, all available information pertaining to the type material is given as derived from the original description and subsequent papers. Type specimens were not examined in the preparation of this paper and therefore in many instances, the kind of type specimens could not be ascertained. In the statement of the type locality, (parentheses) are used to enclose corrections for major political divisions such as states and countries. Dates of type collection and name of collector are given whenever they could be determined. Finally the type depository is indicated in [brackets].

Under BIONOMICS, available data on the original collection site are given. If the immature stages have not been described, a general guide for locating the probable breeding site is given in [brackets] to facilitate future collections.

Genus *Toxorhynchites* Theobald

The genus *Toxorhynchites* is the only member of the tribe Toxorhynchitini (Belkin 1962). Although superficially it appears to be compact in all stages, 3 well marked subgenera are distinguished; of these *Ankylorhynchus* and *Lynchiella* are confined to the New World and *Toxorhynchites* is restricted to the Old World. Of the more than 57 described species, 44 belong to the subgenus *Toxorhynchites* (Stone, Knight and Starcke 1959).

The adults are diurnal in feeding and mating activities. Both sexes feed on flower nectar and females never take blood. Though the immature stages have been normally found in a variety of natural containers, some

species have been collected from artificial containers. All species reported from India have been collected exclusively from treeholes and/or bamboos and only one species is occasionally found in artificial containers. The larvae are predaceous, usually feeding on other immature mosquitoes but sometimes devouring their own kind.

Of the 11 nominal species of *Toxorhynchites* listed, 6 were originally described from India (marked with an asterisk) and the rest, though described from elsewhere, have been reported from the subcontinent.

List of Nominal Species of *Toxorhynchites*

1. *albipes*\* (Edwards 1922). TYPE: Holotype male, Simla (Punjab State, India), 7000-8000 ft., Aug 1915, S. R. Christophers [BM]. BIONOMICS: Immatures in treeholes.
2. *edwardsi*\* (Barraud 1924). TYPE: Holotype male, Krol Mountain near Solan (Punjab State, India), 7000 ft., Aug 1922, P. J. Barraud [LU]. BIONOMICS: Immatures in treeholes.
3. *gilesii*\* (Theobald 1901) [? = *splendens*]. TYPE: Syntypes 1 male and 4 females, Upper Burma and Sikkim (India), date unspecified, Watson (Upper Burma) and G. A. Dudgeon (Sikkim) [BM]. BIONOMICS: [Immatures probably in treeholes and/or bamboos].
4. *gravelyi*\* (Edwards 1921). TYPE: Holotype male, Pashok, Darjeeling District (West Bengal State, India), 2000 ft., 26 May-14 June 1916, F. H. Gravely [IM]. BIONOMICS: Immatures in treeholes and bamboos.
5. *kempi*\* (Edwards 1921). TYPE: Holotype male, Talewadi, near Castle Rock, North Canara District (Mysore State, India), 3 Oct 1916, S. Kemp [IM]. BIONOMICS: Immatures in bamboos.
6. *klossi* (Edwards 1921). TYPE: Holotype male, Kedah Peak (Gunong Jerai), (Malaysia), 3200 ft., Dec 1915, C. Boden Kloss [BM]. BIONOMICS: [Immatures probably in treeholes and/or bamboos].
7. *metallicus* (Leicester, 1904). TYPE: 1 Syntypes male and 1 female, Kuala Lumpur (Malaysia), date and collector unspecified [BM]. BIONOMICS: [Immatures probably in treeholes and/or bamboos].
8. *minimus* (Theobald 1905). TYPE: Holotype male, Yatigantota (Sri Lanka or Ceylon), Mar 1902, E. E. Green [BM]. BIONOMICS: Immatures in bamboos.
9. *regius* (Tennent 1859) [? = *splendens*]. TYPE: Unspecified and nonexistent, Kandy (Sri Lanka or Ceylon), Thwaites [NE]. BIONOMICS: [Immatures probably in treeholes and/or bamboos].
10. *sikkimensis*\* (Giles, 1901) [? = *splendens*]. TYPE: Holotype female, Sikkim (India), date unspecified, G. A. Dudgeon [BM]. BIONOMICS: [Immatures probably in treeholes and/or bamboos].

11. *splendens* (Wiedemann, 1819). TYPE: Syntype males (?), Java (Indonesia) [NMW, *vide* Barraud, 1934; NMW, ZMC, *vide* Stone, Knight and Starcke, 1959]. BIONOMICS: Immatures in treeholes, bamboos and occasionally in artificial containers.

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